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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,247	12/06/2001	Juergen A. Kortenbach	SYN-064B	5785

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EXAMINER

PANTUCK, BRADFORD C

ART UNIT	PAPER NUMBER
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3731

DATE MAILED: 04/07/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/010,247

Applicant(s)

KORTENBACH ET AL.

Examiner

Bradford C Pantuck

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-11, 13-15, 23 and 24 is/are rejected.
- 7) ☒ Claim(s) 5, 12 and 16-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Fill in the correct serial numbers of the co-owned applications, which have not been filled in the following places: page 1, line 5; page 15, line 13; page 17, lines 10, 11, and 17; and page 19, lines 12 and 21. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6, 7, 15, 23, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,354,312 to Brinkerhoff et al. Regarding Claims 1 and 2, Brinkerhoff discloses a device capable of applying surgical clips, which has a hollow member (42) and a clevis (65) coupled to the distal end of the hollow member [see Column 4, lines 17-22; Fig. 3]. There is a first jaw (46) rotatably coupled to the clevis (65), and a second jaw (48) rotatably coupled to the clevis (65) [Fig. 3; Column 4, lines 20-22]. The two jaws oppose each other, as shown in Fig. 2, and are able to apply a surgical clip. Brinkerhoff's invention includes a pull/push wire (54), which is coupled to the jaws (46, 48) and extends through the hollow member (42) to its proximal end [see Fig 2; Column 4, lines 23-31]. Wire (54) is capable of both

pushing and pulling the jaws into respective open and closed positions [Column 4, lines 29-31].

Next, Brinkerhoff discloses actuation means (44, 56, 58) coupled to the proximal end of the hollow member and the proximal end of the push/pull wire. The actuation means moves the push/pull wire through the hollow member to cause the jaws to rotate between an open and a closed position [see Fig. 2; Column 4, lines 7-11]. Both of the jaws have a plurality of teeth (96), which are able to puncture and damage tissue adjacent to the surgical instrument [see Fig. 6; see Column 5, lines 57-50. For example, if the user presses the jaws together hard enough, the teeth will rupture tender body tissue.

3. Regarding Claims 3 and 4, Brinkerhoff discloses a device capable of applying surgical clips, according to the claimed invention. Each jaw in his device has a clip guiding channel (94) with a hook shaped anvil (70) at the end of each respective channel [see Fig. 6]. The channel (94) is capable of grasping and guiding a clip, just as it is capable of grasping a "shaft 24" [Column 5, lines 1-4].

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4. Regarding Claims 6 and 7, Brinkerhoff discloses a device capable of applying surgical clips, according to the claimed invention, with anvils (70) that have curved surfaces. One of the anvils' surfaces is curved about a single axis [see Fig. 6].
5. Regarding Claim 15, Brinkerhoff discloses a device capable of applying surgical clips, according to the claimed invention, and as described above. Additionally, his instrument has a first linkage (66 and 68), which has a first element (66) that is rotatably coupled to the clevis (65) and coupled to the push/pull wire (54) and a

second element (68) that is rotatably coupled to the first element [at point 69 in Fig. 2] and rotatably coupled to the first end effector (46) [see Column 4, lines 18-31].

6. Regarding Claims 23 and 24, Brinkerhoff additionally discloses that his instrument has a first and a second linkage (66 and 68), each of which is rotatably coupled to the clevis (65), coupled to a push/pull wire (54), and coupled to the first end effector (48 and 46). Each linkage provides mechanical advantage in rotating the end effector, because each linkage holds each respective jaw (48 or 46) further out on each jaw (48 or 46), which diminishes the mechanical work that must be done on each jaw to open and close it.

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7. Claims 1-4, 6, 7-11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,139,555 to Hart et al. Regarding Claims 1 and 2, Hart discloses a surgical clip applier, which has a hollow member (12) and a clevis (37) coupled to the distal end of the hollow member. The clevis attaches to the pivot axis (34), which is coupled to the hollow member (12) [see Column 6, lines 51-54; Figures 1 and 3]. There is a first jaw (30) rotatably coupled to the clevis (37), and a second jaw (30) rotatably coupled to the clevis (37) [Figures 2 and 3; Column 6, lines 51-54]. The two jaws oppose each other, as shown in Fig. 2, and apply a surgical clip. Hart's invention includes a pull/push wire (32), which is coupled to the jaws (30) and extends through the hollow member (12) to its proximal end [see Fig 2; Column 7, lines 46-53]. Wire (32) is capable of both pushing and pulling the jaws into respective open and closed positions [Column 8, lines 9-19].

Next, Hart discloses actuation means (50) coupled to the proximal end of the hollow member and the proximal end of the push/pull wire. The actuation means moves the push/pull wire through the hollow member to cause the jaws to rotate between an open and a closed position [Column 8, lines 9-19].

8. Regarding Claims 3, 4, and 10, Hart discloses a surgical clip applier, according to the claimed invention. Each jaw in his device has a clip guiding channel (38) with a hook shaped anvil (see Attachment 1) at the end of each respective channel. Each clip guiding channel terminates in an anvil [see attached Fig. 7]. The hook is sufficiently curved to resemble a hook that one would hang one's coat on. The clip guiding channel (38) guides the clips and aligns them for attachment [Column 7, line 54 to Column 8, line 2].
9. Regarding Claims 6, 7, and 11, Hart discloses a surgical clip applier, according to the claimed invention, with anvils (see Attachment 1) that have curved surfaces (42). One of the anvils' surfaces is curved about a single axis [see Fig. 7]. The so-called "lip" (42) of the anvil surface [Column 7, lines 17-20] is curved about the axial center of the lip.
10. Regarding Claims 8 and 13, Hart discloses a surgical clip applier, according to the claimed invention. Each jaw has a longitudinal axis and a vertical axis, perpendicular to the longitudinal axis. Each of the channels (38) is arranged at an angle relative to the vertical axis [see Fig. 7].
11. Regarding Claims 9 and 14, the angle formed between the clip guiding channel and the vertical axis in Hart's invention is approximately 22 degrees [see Fig. 7].

Allowable Subject Matter

Claims 5, 12, and 16-22 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,425,737 to Burbank et al.

U.S. Patent No. 6,162,233 to Williamson, IV et al.

U.S. Patent No. 5,374,570 to Kockerling et al.

U.S. Patent No. 5,269,840 to Bales et al.

U.S. Patent No. 5,099,827 to Melzer et al.

U.S. Patent No. 5,871,488 to Tovey et al.

U.S. Patent No. 5,716,374 to Francese et al.

Pub. No. US 2002/0082621 A1 to Schurr et al.

Pub. No. US 2003/0014065 A1 to Osterlind

U.S. Patent No. 6,013,095 to Ouchi

Pub. No. US 2002/0198549 A1 to Sixto, JR et al.

Pub. No. US 2002/0068935 A1 to Kortenbach et al.


Art Unit: 3731

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradford C Pantuck whose telephone number is (703) 305-8621. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J Milano can be reached on (703) 308-2496. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 305-3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

BCP
BCP
March 26, 2003


MICHAEL J. MILANO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700